NOV 1 0 2004 5 EXERTIFICATE: EL988602930US

date set forth below as Express Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450,

Alexandria, VA 22313-1450.

Date of Signature and Deposit: November  $\mathcal{L}_{\mathcal{L}}$ , 2004

By:

(Signature of person depositing mail)

Group Art Unit: 1614

Examiner: TBA

ERIN L. DUFFY
(Typed/Printed Name)

## **CERTIFICATE OF MAILING PURSUANT TO 37 C.F.R. 1.10**

In re Application of: Massia, et al.

Serial No.: 10/716,293

Filed: November 17, 2003

For: THERAPEUTIC BIOCONJUGATES

Attorney Docket No.: 112624.00028

Commissioner for Patents U.S. Patent & Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

Type of Filing:

- 1) Information Disclosure Statement;
- 2) Form PTO-1449 (8 pages);
- 3) References (77); and
- 4) Return receipt postcard



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Massia,, et al.

Serial No.:

10/716,293

Filed:

November 17, 2003

Art Unit: 1614

For:

THERAPEUTIC BIOCONJUGATES

Examiner:

## PURSUANT TO 37 C.F.R. § 1.97

Commissioner for Patents U.S. Patent & Trademark Office P.O. Box 1450 Alexandria, VA 22313

Dear Sir:

Applicant hereby brings to the attention of the Examiner the documents noted on the accompanying Form PTO-1449. This Information Disclosure Statement is being filed before the mailing date of the first Office Action on the merits.

It is respectfully requested that the information cited herein be expressly considered during the prosecution of this application and made of record on any patent to issue therefrom. Inclusion of a reference on the enclosed 1449 is not to be construed as indicating the reference is prior art. Provision of this Information Disclosure Statement is not to be taken as evidence that a search has been conducted.

The Commissioner is hereby authorized to charge any cost that may be due to Deposit Account No. 17-0055.

Respectfully submitted,

1

QUARLES & BRADY STREICH LANG, LLP

November 10, 2004

Barbara J. Luther, Reg. No. 33,954

Attorney Docket No. 112624.00028
Address all correspondence to:
Barbara J, Luther

One Renaissance Square
Two North Central Avenue
Phoenix, AZ 85004

Telephone: 602-230-5502 Facsimile: 602-229-5690 Email: bluther@quarles.com

1884365

Please type a plus sign (+) inside this box -> +	Please type	a plus s	sign (+)	inside	this	box	->	+
--	-------------	----------	----------	--------	------	-----	----	---

PTO/SB/08A (08-00)
Approved for use through 10/31/2002.

er the Paperwork Reduction Act of 1995, no persons are required to re-	U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERC espond to a collection of information unless it contains a valid OMB control number
Substitute for form 1449A/PTO	Complete if Known
INFORMATION DISCLOSURE	Application Number 10/716,293

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 8

Complete if Known					
Application Number	10/716,293				
Filing Date	11-17-03				
First Named Inventor	Massia, et al.				
Group Art Unit	1614				
Examiner Name					
Attorney Docket Number	112624 00028				

	U.S. PATENT DOCUMENTS									
Examiner Initials*	No.1	U.S. Patent Number	Document Kind Code <sup>2</sup> (if known)	Name of Patenton or Applicant	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant				
	Α	5,843,885		Benedict et al.	1998	Figures Appear				
			-							
					<del>                                     </del>					
					<del>                                     </del>					
			-1							
			<del>-   -  </del>		<del>    -</del>					
			_   _		<del> </del>					
			_ _							
	<del> </del>									
			<del></del>		<del>                                     </del>					
			-   -		<del>                                     </del>					
					<del>                                     </del>					

				FORE	IGN PATENT DOCUMEN	rs		
Examiner	xaminer Cite		Foreign Patent Do			Date of Publication of	Pages, Columns, Lines,	Т
Initials	No.1	Office <sup>3</sup>	Number <sup>4</sup>	Code <sup>5</sup> lown)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T6
-		<del></del>		 			-	
								1
$\longrightarrow$								
							-	$\vdash$

Examiner	Date	
Signature	Considered	i

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box 🛶	+
---	---

Substit	tute for form 1449B/P1	0		Complete if Known				
INE		NI F	DISCLOSURE	Application Number	10/716,293			
				Filing Date	11-17-03			
STA	ATEMENT	BY	APPLICANT	First Named Inventor	Massia, et al.			
				Group Art Unit	1614			
	(use as many	shee	ts as necessary)	Examiner Name				
Sheet	2	of	8	Attorney Docket Number	112624.00028			
		_			1 1 1 2 0 2 7 1 0 0 0 2 0			

	_	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2
	В	Alemany, M. et al., "Sequence 274-368 in the b3 subunit of the integrin allb b3 provides a ligand recognition and binding domain for the gamma chain of fibrinogen that is independent of platelet activation. Blood 87: 592-601.	
	С	Bajt, M. et al., "A spontaneous mutation of integrin allb b3 (platelet glycoprotein lib-Illa) helps define a binding site. (1992) J Biol Chem 267: 3789-3794.	
	D	Baneres, J., et al., "The cation-binding domain from the alpha subunit of integrin a5b1 is a minimal domain for fibronectin recognition. J Biol Chem (1998) 273: 24744-24753.	
	Ε	Bazzoni, G. et al., "Monoclonal antibody 9EG7 defines a novel b1 integrin epitope induced by soluble ligand and manganese, but inhibited by calcium. (1995) J Biol Chem 270: 25570-25577.	
	F	Bitan, G. et al., "Ligand-integrin av b3 interaction determined by photoaffinity cross-linking. Biochem (2000) 39: 11014-11023.	
	G	Bitan, G. et al., "Mapping of the integrin av b3-ligand interface by photoaffinity cross-linking. Biochem (1999) 38: 3414-3420.	
	Н	Calvete, J. et al., "Characterization of the cross-linking site of disintegrins albolabrin, bitistatin, echistatin, and eristostatin on isolated human platelet integrin gpllb/IIIa. (1994) Biochem Biophys Res Comm 202: 135-140.	
	1	Calvete, J. et al., "Glycoprotein IIb peptide 656-667 mimics the fibrinogen gamma chain 402-411 binding site on platelet integrin GPIIb/IIIa (1993) FEBS Lett 235: 132-135.	
	J	Calvete, J. et al., "Localisation of the cross-linking sites of RGD and KQAGDV peptides to the isolated fibrinogen receptor, the human platelet integrin glycoprotein Ilb/Illa- Influence of peptide length. (1992) Eur J Biochem 206: 759-765.	
	К	Calvete, J. et al., "Proteolytic dissection of the isolated platelet fibrinogen receptor, integrin gp IIIb/IIIa-localization of gpIIb and gp IIIa putatively involved in the subunit interface and in intrasubunit and intrachain contacts. (1992) Biochem J 282: 523-532.	
	L	Cao, Z. et al., "Identification of a domain on the integrin a5 subunit implicated in cell spreading and signaling. J Biol Chem (1998) 273: 31670-31679.	

Examiner	Date
Cionatura	Date
Signature	Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box -> +
--

					Total Strib Control Hamber,		
Substit	tute for form 144	49B/PTO		Complete if Known			
INE		TION I	DISCLOSURE	Application Number	10/716,293		
			_	Filing Date	11-17-03		
STA	ATEME	NT BY	APPLICANT	First Named Inventor	Massia, et al.		
				Group Art Unit	1614		
	(use as i	many shee	ts as necessary)	Examiner Name			
heet	3	of	8	Attomey Docket Number	112624.00028		

_	Τ.	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	_
Examiner Initials*	Cite No. <sup>1</sup>	nem (book, magazine, journal, senal, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	М	Castronovo, V. et al., "Laminin receptor complementary DNA-deduced synthetic peptide inhibits cancer cell attachment to endothelium. (1991) Canc Res 51: 5672-5678.	
	N	Chen, L. et al., "Identification of ligand binding sites on integrin a4 b1 through chemical cross-linking. (1998) 37: 8743-8753.	
	0	Cierniewska-Cieslak, A. et al., "Identification and characterization of two cation binding sites in the integrin b3 subunit. J Biol Chem (2002) 277: 11126-11134.	İ
	Ρ	Cierniewska-Cieslak, A. et al., "Characterization of Cation-Binding Sequences in the Platelet" Biochemistry, Vol. 33, 12238-12246, 1994	
	Q	Cook, J. et al., "Binding of glycoprotein-Illa-derived peptide 217-231 to fibrinogen and von Willebrand factor and its inhibition by platelet glycoprotein Ilb/Illa complex. (1992) Biochim Biophys Acta 1119: 312-321.	
	R	D'Souza, S. et al., "Identification of an active sequence within the first immunoglobulin domain of intercellular molecule-1 (ICAM-1) that interacts with fibrinogen (1996) J Biol Chem 271: 24270-24277.	
	S	D'Souza, S. et al., "Ligand and Cation-binding are dual functions of a discrete segment of the integrin b3 subunit - cation displacement is involved in ligand-binding. (1994) Cell 79: 659-667.	
	Т	D'Souza, S. et al., "Localization of an Arg-Gly-Asp recognition site within and integrin adhesion receptor. Science (1990) 242: 91-93.	
	U	D'Souza, S. et al., "The ligand binding site of the platelet integrin receptor GPIIb-IIIa is proximal to the second calcium binding domain of its alpha subunit (1990) J Biol Chem 265: 3440-3446.	
	V	Du, X. et al., "Long range propagation of conformational changes in integrin allb b3. J Biol Chem (1993) 268: 23087-23092.	
,	* *	Gartner, T. et al. "The peptide Glu-His-Ile-Pro-Ala binds fibrinogen and inhibits platelet aggregation and adhesion to fibrinogen and vitronectin. (1991) Proc Soc Exp Biol Med 198: 649-655. (Abstract Only)	

Examiner	Date	
Signature		i
Signature	Considered	1

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box ->	+
	1 T

PTO/SB/08B (08-00)
Approved for use through 10/31/2002, OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

112624.00028

			o, no persons are required to re		on unless it contains a valid OMB control number.
Subsut	ute for form 1449B/PT	O			omplete if Known
INF	OPMATIO	N F	DISCLOSURE	Application Number	10/716,293
				Filing Date	11-17-03
STA	ATEMENT	BY	APPLICANT	First Named Inventor	Massia, et al.
				Group Art Unit	1614
	(use as many s	hee	s as necessary)	Examiner Name	
Sheet	4	of	8	Attorney Docket Number	112624 00029

Attomey Docket Number

	Т	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T.
	х	Gulino, D. et al., "Calcium-binding properties of the platelet glycoprotein IIb ligand-interacting domain (1992) J Biol Chem 267: 1001-1007.	
	Υ	Honda, S. et al., "Topography of ligand-induced binding sites, including a novel cation-sensitive epitope (AP5) at the amino terminus, of the human integrin b3 subunit. (1995) J Biol Chem 270: 11947-11954.	
	z	Huang, C. et al., "Structural and functional studies with antibodies to the integrin b2 subunit. (2000) 275: 21514-21524.	
	AΑ	Irie, A. et al., "Critical amino acid residues for ligand-binding are clustered in a predicted beta-turn of the 3rd N-terminal repeat in the integrin a4 and a5 subunits. EMBO J (1995) 14: 5550-5556.	
	АВ	Irie, A. et al., "Multiple loop structures critical for ligand binding of the integrin a4 subunit in the upper face of the beta-propeller mode 1. Proc Natl Acad Sci USA 1997; 94: 7198-7203.	
	AC	Jois, S. et al, "Comparison of solution conformations of a cell-adhesive peptide LBE and its reverse sequence EBL. J Biomol Struc Dyn 1999:17:429-444.	
_	ΑD	Jois, S. et al., "A Ca2+ binding cyclic peptide derived from the a-subunit of LFA-1: Inhibitor of ICAM-1/LFA-I-mediated T-cell adhesion. J Pept Res 1999:53:18-29.	
	ΑE	Kam, J. et al., "MUC1 synthetic peptide inhibition of intercellular adhesion molecule-1 and MUC1 binding requires six tandem repeats. (1998) Canc Res 58: 5577-5581.	
	AF	Kamata, T. et al, "Interaction between collagen and a2 I domain of integrin a2/b1. J Biol Chem (1999) 274: 32108-32111.	
	AG	Kamata, T. et al., "Identification of putative ligand-binding sites within of the integrin a4b1 (VLA-2, CD49d/CD29). Biochem J (1995) 305: 945-951.	
,	АН	Kamata, T. et al., "The role of CPNKEKEC sequence in the beta 2 subunit I domain in regulation of integrin aL b2 (LFA-1). (2002) J Immunol 168: 2296-2301.	

Date
Date
Considered
•

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box ->	+	
--	---	--

Substit	ute for form 1449B/PT	<b>o</b>		Complete if Known		
INIE			NCCI COURE	Application Number	10/716,293	
			DISCLOSURE	Filing Date	11-17-03	
STA	ATEMENT I	BY	APPLICANT	First Named Inventor	Massia, et al.	
				Group Art Unit	1614	
	(use as many s	heel	s as necessary)	Examiner Name	t.b.d.	
Sheet	5	of	8	Attorney Docket Number	112624.00028	

OTHER PRIOR ART

	_	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2
	ΑI	Grunkemeier, J. et al., "Fibrinogen receptor-like biomaterials made by pre-adsorbing peptides to polystyrene substrates (1996) J Mol Recog 9: 247-257.	
	AJ	Kamata, T. et al., Identification of putative ligand binding sites within I domain of integrin a2/b1(VLA-2, CD49b/CD29). J Biol Chem (1994) 269: 9659-9663.	
	AK	King, S. et al., "Echovirus-1 interaction with the human very late antigen-2 (integrin a2/b1) I domain. J Biol Chem (1997) 272: 285518-28522.	
	AL	Kouns, W. et al., "Further characterization of the loop structure of platelet glycoprotein IIIa- partial mapping of functionally significant glycoprotein IIIa epitopes. (1991) Blood 78: 3215-3223.	
	ΑM	Lasz, E. et al., "b3 integrin derived peptide 217-230 inhibits fibrinogen binding and platelet aggregation: significance of RGD sequences and fibrinogen A alpha chain. (1993) Biochem Biophys Res Comm 190: 118-124.	
	AN	Lin, E. et al., "Identification of a region in the integrin b3 subunit that confers ligand binding specificity. (1997) J Biol Chem 272: 23912-23920.	
	AC	Liu, Y. et al., "The binding ability of matrix proteins and the inhibitory effects on cell adhesion of synthetic peptides derived from a conserved sequence of integrins" (1997) J Biochem 121: 961-968.	
	AP	Lu, C. et al., "Epitope mapping of antibodies to the C-terminal region of the integrin b2 subunit reveals regions that become exposed upon receptor activation. (2001) 166: 5629-5637.	
	AC	Makagiansar, Y. et al., "Binding and internalization of an LFA-1-derived cyclic peptide by ICAM receptors on activated lymphocyte: A potential ligand for drug targeting to ICAM-1 expressing cells. Pharm Res 2001:18:329-335.	
	AR	Makagiansar, Y. et al., "Inhibition of the adherence of T-lymphocytes to epithelial cells by a cyclic peptide derived from inserted domain of lymphocyte function-associated antigen-1. Inflammation 2001:25:203-214.	
	AS	Makogonenko, M. et al., "Thermal stability of individual domains in platelet glycoprotein IlbIIIa (1996) Eur J Biochem 237: 205-211.	

Examiner		Date	
Cimmodulus :	4	Date	
Signature		Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type	a plus	sign (+)	inside	this box	<b>→</b>	+	
-------------	--------	----------	--------	----------	----------	---	--

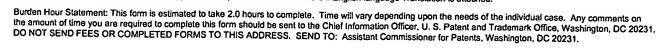
	Complete if Known				
	Application Number	10/716,293			
	Filing Date	11-17-03			
	First Named Inventor	Massia, et al.			
	Group Art Unit	1614			
	Examiner Name	t.b.d.			
	Attorney Docket Number	112624 00029			

## Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) Sheet of 6 8

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
Cite No. <sup>1</sup>							
АТ	Mould, A. et al., "Molecular basis of ligand recognition by integrin a5b1. J Biol Chem (2000) 275: 20324-20336.						
AU	Ni, H. et al., "Localisation of a novel adhesion blocking epitope on the human beta 1 integrin chain. (1998) Cell Adhesion and Comm 5: 257-271.						
ΑV	Pasqualini, R. et al., "A peptide isolated from phage display libraries is a structural and functional mimic of an RGD-binding site on integrins. (1995) J Cell Biol 130: 1189-1196.						
ΑV	Plescia, J. et al., "Molecular identification of the cross-reacting epitope on abb2 integrin I domain recognized by anti-allbb3 monoclonal antibody 7E3 and its involvement in leukocyte adherence. J Biol Chem (1998) 273: 20372-20377.						
AX	Puzon-McLaughlin, W. et al., "Critical residues for ligand binding in an I domain-like structure of the integrin b1 subunit. (1996) J Biol Chem 271: 20438-20443.						
AY	Puzon-McLaughlin, W. et al., "Multiple discontinuous ligand-mimetic antibody binding sites define a ligand binding pocket in integrin allb b3. (2000) J Biol Chem 275: 7795-7802.						
ΑZ	Rieu, P. et al., "The A domain of b2 integrin CR3 (CD11b/CD18) is a receptor for the hookworm-derived neutrophils adhesion inhibitor NIF. J Cell Biol 1994; 127: 2081-2091.						
ВА	Scheibler, L. et al., "Identification of a contact domain between echistatin and the integrin av b3 by photoaffinity cross-linking. Biochem (2001) 40: 15117-15126.						
ВВ	Schiffer, S. et al., "Molecular mapping of functional antibody binding sites of a4 integrin. J Biol Chem (1995) 270: 14270-14273.						
ВС	Shannon, J. et al., "Novel cyclic peptide inhibits intercellular adhesion molecule-1 mediated cell aggregation. (2001) J Peptide Res 58: 140-150.						
BC	Shih, D. et al., "Epitopes of adhesion-perturbing antibodies map within a predicted alpha helical domain of the integrin b1 subunit. (1997) 110: 2619-2628.						
	AV AX AY BA BB BC	Mould, A. et al., "Molecular basis of ligand recognition by integrin a5b1. J Biol Chem (2000) 275: 20324-20336.  AU Ni, H. et al., "Localisation of a novel adhesion blocking epitope on the human beta 1 integrin chain. (1998) Cell Adhesion and Comm 5: 257-271.  AV Pasqualini, R. et al., "A peptide isolated from phage display libraries is a structural and functional mimic of an RGD-binding site on integrins. (1995) J Cell Biol 130: 1189-1196.  AV Plescia, J. et al., "Molecular identification of the cross-reacting epitope on abb2 integrin I domain recognized by anti-allbb3 monoclonal antibody 7E3 and its involvement in leukocyte adherence. J Biol Chem (1998) 273: 20372-20377.  AX Puzon-McLaughlin, W. et al., "Critical residues for ligand binding in an I domain-like structure of the integrin b1 subunit. (1996) J Biol Chem 271: 20438-20443.  AY Puzon-McLaughlin, W. et al., "Multiple discontinuous ligand-mimetic antibody binding sites define a ligand binding pocket in integrin allb b3. (2000) J Biol Chem 275: 7795-7802.  Rieu, P. et al., "The A domain of b2 integrin CR3 (CD11b/CD18) is a receptor for the hookworm-derived neutrophils adhesion inhibitor NIF. J Cell Biol 1994; 127: 2081-2091.  BA Scheibler, L. et al., "Identification of a contact domain between echistatin and the integrin av b3 by photoaffinity cross-linking. Biochem (2001) 40: 15117-15126.  BB Chem (1995) 270: 14270-14273.  Shannon, J. et al., "Novel cyclic peptide inhibits intercellular adhesion molecule-1 mediated cell aggregation. (2001) J Peptide Res 58: 140-150.					

Examiner	Date	
Cianatura		
Signature	Considered	

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box ->	+
--	---

Substitute for form 1449B/PTO				Complete if Known		
NE			Necl Ocupe	Application Number	10/716,293	
NFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	11-17-03	
				First Named Inventor	Massia, et al.	
				Group Art Unit	1614	
(use as many sheets as necessary)			s as necessary)	Examiner Name	t.b.d.	
reet	7	of	8	Attorney Docket Number	112624.00028	

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	BE	Steiner, B. et al., "Peptides derived from a sequence within b3 integrin bind to a platelet allb b3 (gpllb-Illa) and inhibit ligand binding. (1993) J Biol Chem 268: 6870-6873.	
	BF	Takada, Y. et al., "Identification of regulatory region of integrin b1 subunit using activating and inhibiting antibodies. (1993) J Biol Chem 268: 17597-17601.	
	BG	Takagi, J. et al., "Changing ligand specificities of avb1 and avb3 integrins by swapping a short diverse sequence of the beta subunit. (1997) J Biol Chem 272: 19794-19800.	
	вн	Tibbetts, S. et al., "Peptides derived from ICAM-1 and LFA-1 modulate T cell adhesion and immune function in a mixed lymphocyte culture. Transplantation 1999:68:685-692.	
	ВІ	Tidswell, M. et al., "DJ. Structure-function analysis of the integrin b7 subunit: identification of domains involved in adhesion to MAdCAM-1. J Immunol (1997) 159: 1497-1505.	
	BJ	Triantafilou, M. et al., "High affinity interactions of coxsackievirus A9 with integrin av b3 (CD51/61) require the CYDMKTTC sequence of b3, but do not require the RGD sequence of the CAV-9 VP-1 protein. (2000) Human Immnol 61: 453-459.	
	вк	Tuckwell, D. et al., "Monoclonal antibodies identify residues 199-216 of the integrin a2 vWFA domain as a functionally important region within a2/b1. Biochem J (2000) 350: 485-493. U.S. Patent No. 5,843,885, Benedict et al (1998)	
	BL	Welply, J. et al., "A peptide isolated by phage display binds to ICAM-1 and inhibits binding to LFA-1. (1996) Proteins Struct Funct Genetics 26: 262-270.	
	вм	Wierzbicka, I. Et al., "Interaction of b3 integrin-derived peptides 214-218 and 217-231 with allb b3 complex and with fibrinogen A alpha chain (1997) Thromb Res 85: 115-126.	
	ΒN	Xiong, Y. et al., "Identification of functional segments within the b2 I-domain of integrin am b2. (2002) 277: 46639-46644.	
	вс	Xiong, Y. et al., "Structure-function of the putative I-domain within the integrin b2 subunit. (2001) 276: 19340-19349.	

Examiner Signature	Date Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box	<b>→</b>	+
---	----------	---

				and the state of t			
Substit	ute for form 1449B/PT(	)		Complete if Known			
INE			NCCI OCUDE	Application Number	10/716,293		
			DISCLOSURE	Filing Date	11-17-03		
STA	ATEMENT E	<b>3</b> Y	APPLICANT	First Named Inventor	Massia, et al.		
				Group Art Unit			
(use as many sheets as necessary)				Examiner Name			
Sheet	8	of	8	Attorney Docket Number	112624.00028 ORD		
_					1 · · · · · · · · · · · · · · ·		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
Examiner Initials	Cite No.1					
	ВР	Yakubenko, V. et al., "Identification of the Binding Site for Fibrinogen". Journal of Biological Chemistry, Vol. 276, No. 17., 2001, pp. 13995-14003.				
	вс	Yao, L. et al., "Interactions of Integrin GPllb/Illa-derived peptides", Biochem J., 315, pp. 161-170, 1996.				
	BR	Zhang, L. et al., "Amino acid sequences within the alpha subunit of integrin am b2 (Mac-1) critical for specific recognition of C3bi. Biochem (1999) 38: 8064-8071.				

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Examiner Date Signature Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.